

Remarks

This application has been carefully reviewed in light of the Office Action mailed July 20, 2009 (the "Office Action"). At the time of the Office Action, Claims 41-80 were pending in the application.

Information Disclosure Statement

In response to the objections raised by the Examiner on pages 2-3 of the Office Action, Applicant will submit a supplemental information disclosure statement.

Drawings

In response to the objections to the drawings made on page 4-5 of the Office Action, Applicant submits herewith new Figures 7-9. Applicant respectfully submits that these new figures contain no new matter and show the elements recited in claims 49, 59 and 78. Applicant submits that the drawings are now in compliance and respectfully request withdrawal of the objection.

Section 102 rejections

Zambelli

In the Office Action, claims 41-48 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Pat. No. 6,729,093 to Zambelli et al ("Zambelli"). Applicant respectfully traverses the rejection.

Zambelli describes a prefabricated concrete panel 1 having a first sheet 2 and a second sheet 3 embedded in the concrete body 13 of the panel. See Col. 2, lines 52-55. An air chamber 4 is formed between the sheets in order to increase the thermal and/or acoustic insulation of the panel. See Col. 2, lines 60, 61. The air chamber 4 is divided into a plurality of recesses 5, respectively formed by cups 2a. The recesses are connected to one another by passages 6 formed in the edges of the cups. See Col. 3, lines 4-6. The Examiner considers Zambelli's sheet 2 to provide an elongate batten as defined by Applicant's claim 41. However, Zambelli's sheet 2 is embedded in the concrete body 13 (see Col. 2, lines 52-55 and Figure 2). As such, the adjacent sheet 3 does not provide an "inner wall framing member" and the surrounding concrete body 13 does not provide an "outer wall cladding sheet," as recited in Applicant's independent claim 41.

Additionally, Zambelli does not refer to a “wall cavity” construction. In particular, Zambelli discusses the use of the concrete panel 1 to avoid the need to provide a cavity between the inner side of the concrete panel 1 and the internal space of the building. *See e.g.*, Col 1, line 67. Applicant respectfully submits that Zambelli does not disclose or suggest the feature of a wall cavity as recited in Applicant’s independent claim 41.

Additionally, Zambelli does not disclose or suggest “at least one longitudinally extending channel to facilitate migration and drainage of moisture between the batten and the framing member along the length of the batten,” as recited in Applicant’s independent claim 41. In this regard, there is no disclosure of moisture drainage or migration in Zambelli and, in any case, Applicant does not believe there is likely to be moisture present inside the concrete panel. Applicant does not consider the air chamber 4 formed by the recesses 5 and connecting passages 6 in Zambelli to provide the above feature of Applicant’s claim 41.

Specifically, as recited above, the sheets of Zambelli are embedded in the concrete body and a duct 7 connects the air chamber 4 to the outside of the panel. Zambelli discusses that circulation of air inside the chamber allows the avoidance of condensation on the side of the concrete panel that is directed towards the inside of the building, thus obviating the need to provide a cavity to remove condensation between the inner side of the panel and the internal space of the building. Additionally, the air chamber 4 does not appear to facilitate drainage or migration of moisture within the concrete panel. In fact, it is submitted that it is not necessary to drain or facilitate the migration of moisture inside the concrete panel of Zambelli. Similarly, Applicant does not consider the passages 6 of Zambelli to provide the feature of a “generally transverse channel to facilitate migration and drainage of moisture across the batten,” for example as recited in Applicant’s claims 47 and 48.

With regard to claims 43 and 45, the Examiner has identified the grooves 9 of Zambelli as providing the feature of a longitudinal channel formed in the outer surface of the batten. The Examiner also considers the grooves 9 to provide transverse channels formed in the outer surface of the batten. Applicant respectfully submits that there is no disclosure or suggestion of this feature in Zambelli. During fabrication of Zambelli’s panel, sheet 2 is embedded in the concrete body 13 and the grooves 9 are filled with concrete. Applicant submits that there is unlikely to be

any moisture between the grooves and the concrete and, in any case, the concrete-filled grooves do not provide channels. Thus, the grooves 9 of Zambelli are unable to provide longitudinal channels that facilitate migration and drainage of moisture.

For the foregoing reasons, Applicant respectfully submits that independent claim 41 and dependent claims 42-70 are novel and non-obvious over Zambelli. Applicant respectfully requests that the rejections under Section 102 based on Zambelli be withdrawn.

Clayton

In the Office Action, claims 71, 72, 74-76 and 79-80 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Pat. Application Publication No. 2002/0108333 to Clayton ("Clayton"). Applicant respectfully traverses the rejection.

Clayton describes a method of building construction including forming a structural frame from framing members (studs 1), such that cavities are formed between the framing members. Wooden panels are attached to the studs and moisture drainage panels are attached to the outer side of the wooden panels. A lath support layer and a layer of render are then applied over the moisture drainage panels. See Figure 1 and paragraph [0013]. Referring to figure 7 of Clayton, the moisture drainage panels 20 include vertical notches 62 on the face of the drainage panel, which provides a path for water to drain away under the influence of gravity. See also paragraph [0019].

Applicant respectfully submits that the moisture drainage panels 20 are not secured to "outer surfaces of at least some of the framing members," as is required of the battens recited in Applicant's independent claims 71 and 80. Instead, the drainage panels 20 of Clayton are secured to the underlying wooden panels. In addition, both the inner and outer faces of the frame have solid panels attached. As such, there is no cavity construction in Clayton of the type defined in Applicant's claims. Specifically, there is no disclosure or suggestion in Clayton of a batten "facilitating drainage and ventilation of the cavities" between the framing members, for example, as recited in Applicant's claims 71 and 80. In fact, there is no disclosure or suggestion in Clayton of any drainage or ventilation between the framing members at all; rather the drainage occurs in the outer wall construction, between the drainage panel 20 and the underlying wooden panel.

For the foregoing reasons, Applicant respectfully submits that independent claims 71 and 80 and dependent claims 72 to 79 are novel and non-obvious in view of Clayton. Applicant respectfully requests that the rejections under Section 102 based on Clayton be withdrawn.

Section 103 Rejections

Zambelli as principal reference

In the Office Action, claims 59-70 were rejected under 35 U.S.C. 103(a) as being unpatentable over Zambelli in view of other references as indicated on pages 13-19 of the Office Action. Applicant respectfully traverses the rejections. Applicant refers to its comments above with respect to the principal reference Zambelli and submits that claims 59 to 70 (which are dependent of independent claim 41) are novel and non-obvious.

With respect to the rejection of Claim 61 (as being unpatentable over Zambelli in view of US Publication No. 2003/0054123 to Black et al. (Black)), Applicant submits that Black describes a reinforced fibre cement article for use as a siding plank and also discusses the resistance of fibre cement articles to water. Applicant respectfully submits, however, that it would not have been obvious to form the batten recited in Applicant's claim 41 from fibre reinforced cement (as recited in Applicant's claim 61), for at least the following reasons. Applicant acknowledges that the problem of timber battens being affected by water is not new. However, the extent of the problem has not been recognized until relatively recently or has been ignored due to cost. It has been exacerbated, particularly in cold climates, by the use of central heating etc where an artificially high temperate differential between building exteriors and interiors is created and maintained over significant time periods. The problem of reducing the effect of condensed moisture etc in walls/framing has focused predominantly in modifying the configuration of the exterior wall facing to remove/reduce the potential for water ingress. The use of fibre cement has not been obvious as in non-severe climate applications and in fact, the use of fibre cement battens would be seen as over engineering. The development of cellulose reinforced fibre cement battens on site by manual cutting from manufactured sheets is time consuming, therefore adding to the cost of construction. For these reasons, Applicant submits that claim 61 is non-obvious over the cited references.

With respect to the rejection of claim 70 (as being unpatentable over Zambelli in view of US Patent No. 6,018,925 to Biro (Biro)), Applicant submits that it would not have been obvious to include the flutes and channels of Biro into the outer surface of the cups of Zambelli because the sheet 2 of Zambelli is embedded in a concrete body 13, as discussed above. Applicant respectfully submits that there is unlikely to be any moisture between the sheet 2 and the concrete and therefore no requirement to carry moisture away from between these surfaces. Additionally, there is no functionality that could be provided by a horizontally installed flooring section that could equate with drainage channels provided in a vertically installed wall section.

For the foregoing reasons, Applicant respectfully submits that claims 59-70 are non-obvious over the Zambelli reference and other combinations. Applicant respectfully requests that these rejections be withdrawn.

Clayton as principal reference

In the Office Action, claims 73, 77 and 79 were rejected under 35 U.S.C. 103(a) as being unpatentable over Clayton in view of other references as indicated on pages 19-21 of the Office Action. Applicant respectfully traverses the rejections. Applicant refers to its comments above with respect to the principal reference Clayton and submits that claims 73, 77 and 78 (which depend from independent claim 71) are novel and non-obvious.

With respect to the rejection of claim 78 (as being unpatentable over Clayton in view of US Patent No. 7,096,629 to Cox ("Cox")), Cox discloses mounting thin stone panels to complex aluminum supports in order to attach the panels to the side of a building. See abstract. The use of the aluminum supports provide strength and stiffness to the panels as well as avoiding the need to drill holes in the stone panels for attachment to the building, which can often result in breakage of the panels. Furthermore, the panels of Cox are mounted to a complex, interlocking support system, where horizontal channels formed within the support sections fixed to the external facing material form an enclosed channel which does not allow for transfer of condensed moisture to the general cavity. As such, moisture condensation cannot be directed within the space between the building frame and the exterior facing material.

In contrast, the battens of Clayton are formed by flat drainage panels, with no inherent means of attachment to the framing members. Also, the cladding used in Clayton is stucco or render, which is applied in paste form and dried.

Applicant respectfully submits that it would not have been obvious to modify the method of Clayton by pre-attaching the battens to the overlying stucco and subsequently securing such a sub assembly to the framing members. For the foregoing reasons, Applicant requests withdrawal of the rejections under Section 103.

Conclusion

Applicant respectfully requests reconsideration of the application in view of the foregoing amendment and remarks. Applicant submits that that application is in condition for allowance and requests entry of the amendments and allowance of all pending claims. If the Examiner feels that a telephone conference would advance prosecution of this Application in any manner, the Examiner is invited to contact the undersigned at 214-999-4487 at the Examiner's convenience. Although no fees are believed due other than the 3 month extension of time fee, the Commissioner is hereby authorized to charge this fee and any and all other fees necessitated by this response or credit any overpayments to Deposit Account No. 07-0153 of Gardere Wynne Sewell LLP.

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Respectfully submitted,

GARDERE WYNNE SEWELL LLP

/Jason R. Fulmer/

Jason R. Fulmer

Registration No. 46,715

Attorneys for Applicant

1601 Elm Street, Suite 3000
Dallas, Texas 75201-4761
(214) 999-4330 – Telephone
(214) 999-3623 – Facsimile
Customer Number 60148